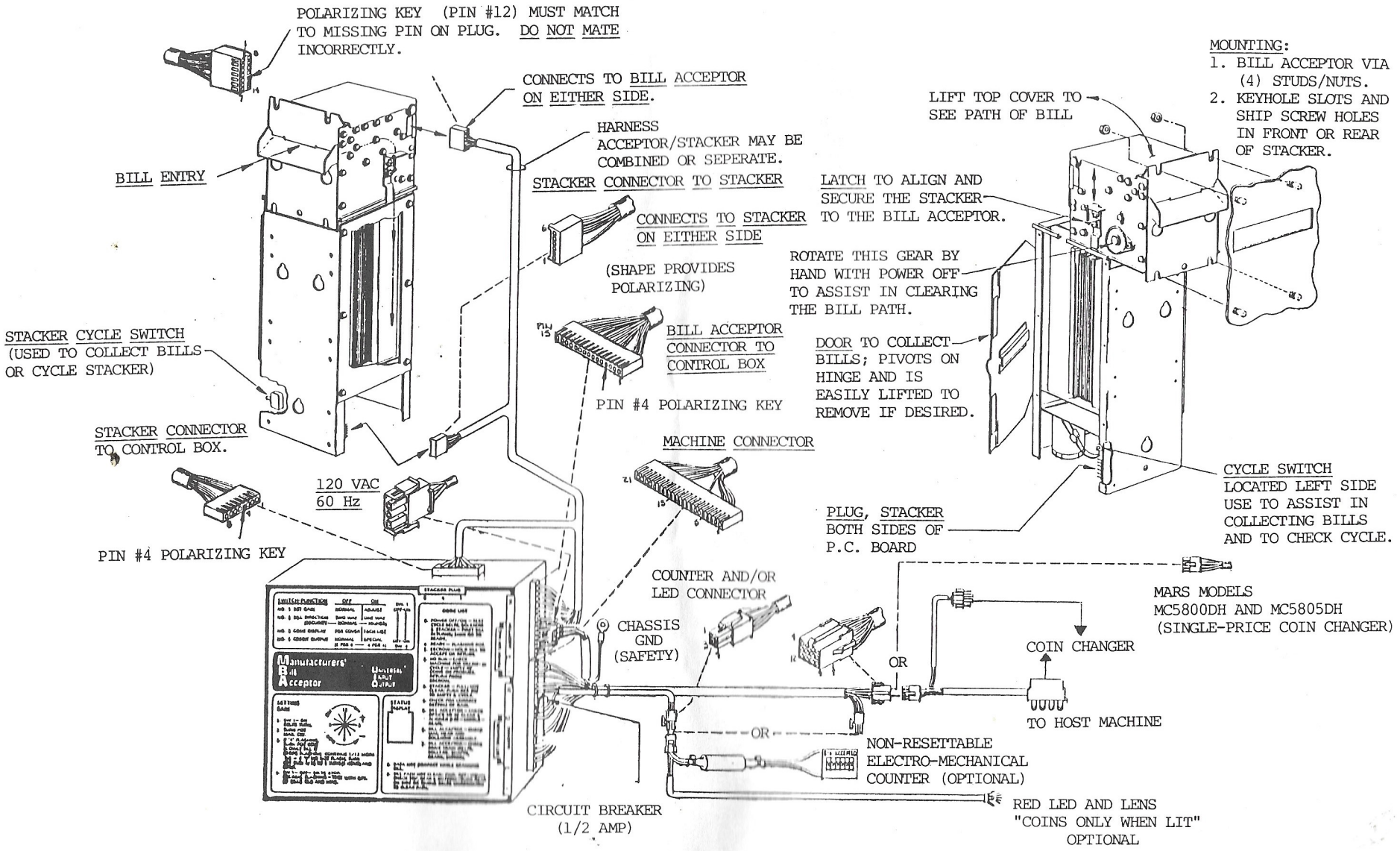
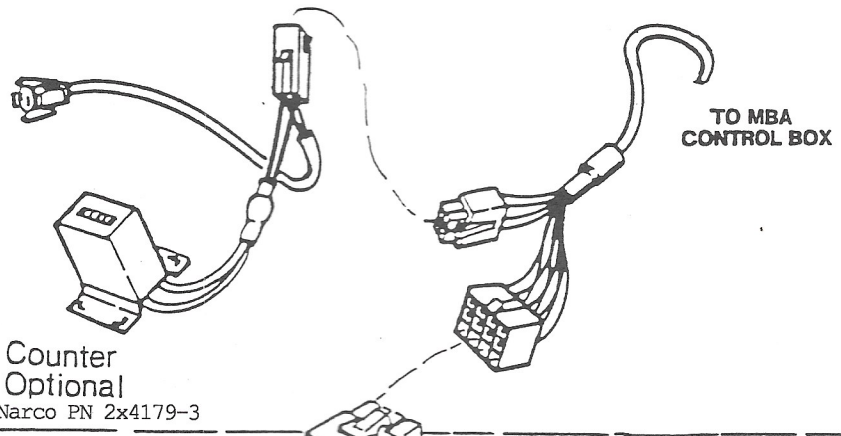
Manufacturers' Bill Acceptor — Universal Input Output

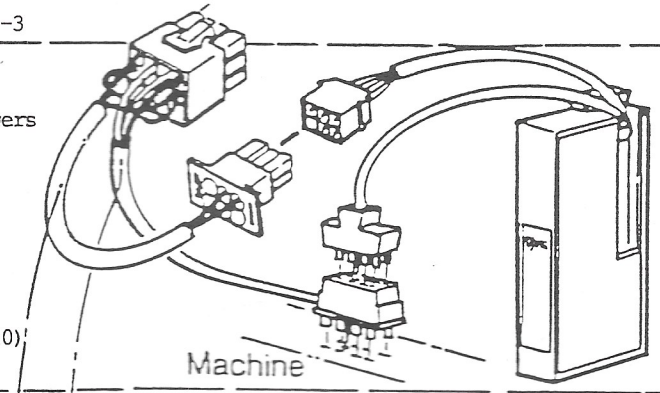

POLARIZING KEY (PIN #12) MUST MATCH TO MISSING PIN ON PLUG. DO NOT MATE INCORRECTLY.
CONNECTS TO BILL ACCEPTOR ON EITHER SIDE.
HARNESS ACCEPTOR/STACKER MAY BE COMBINED OR SEPERATE.
BILL ENTRY
STACKER CONNECTOR TO STACKER
CONNECTS TO STACKER ON EITHER SIDE
(SHAPE PROVIDES POLARIZING)
LIFT TOP COVER TO SEE PATH OF BILL
LATCH TO ALIGN AND SECURE THE STACKER TO THE BILL ACCEPTOR.
ROTATE THIS GEAR BY HAND WITH POWER OFF TO ASSIST IN CLEARING THE BILL PATH.
MOUNTING:
1. BILL ACCEPTOR VIA (4) STUDS/NUTS.
2. KEYHOLE SLOTS AND SHIP SCREW HOLES IN FRONT OR REAR OF STACKER.
STACKER CYCLE SWITCH (USED TO COLLECT BILLS OR CYCLE STACKER)
BILL ACCEPTOR CONNECTOR TO CONTROL BOX
PIN #4 POLARIZING KEY
DOOR TO COLLECT BILLS; PIVOTS ON HINGE AND IS EASILY LIFTED TO REMOVE IF DESIRED.
STACKER CONNECTOR TO CONTROL BOX.
MACHINE CONNECTOR
120 VAC 60 Hz
PIN #4 POLARIZING KEY
PLUG, STACKER BOTH SIDES OF P.C. BOARD
CYCLE SWITCH LOCATED LEFT SIDE USE TO ASSIST IN COLLECTING BILLS AND TO CHECK CYCLE.
COUNTER AND/OR LED CONNECTOR
CHASSIS GND (SAFETY)
MARS MODELS MC5800DH AND MC5805DH (SINGLE-PRICE COIN CHANGER)
COIN CHANGER
OR
TO HOST MACHINE
OR
NON-RESETTABLE ELECTRO-MECHANICAL COUNTER (OPTIONAL)
CIRCUIT BREAKER (1/2 AMP)
RED LED AND LENS "COINS ONLY WHEN LIT" OPTIONAL

ELECTRICAL CONNECTIONS



HI LEVEL INTERFACE

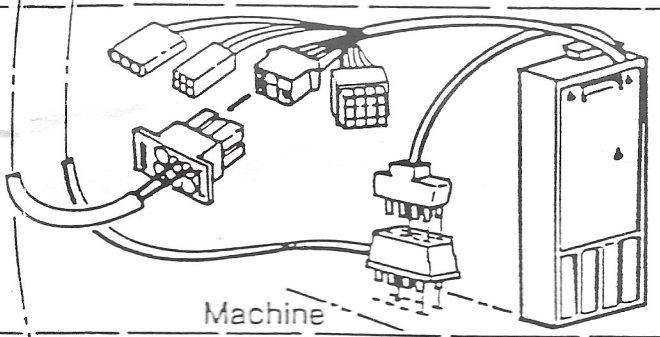
1.....MBA T-Adapter shown connected to "HI-LEVEL" changers
COINCO...models S300E9240
F300E9210
(extra adapter CA #406277)
9340-S
MARS.....models MC5802
MC6200
MC5807
MC5920ADH (4 price)
(extra adapter Dixie-Narco PN 99x0019-10)
MAKA.....model US111



OPTIONAL HI/LOW LEVEL INTERFACE

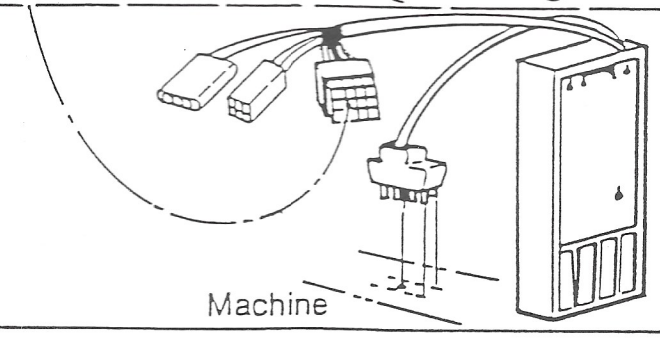
2.....MARS.....model TRC6800H

HI-LEVEL Interface shown, LO-LEVEL Interface same as 3.



LOW LEVEL INTERFACE

3.....MARS.....models MC5800DH
MC5805DH
TRC6800H



The Dixie-Narco MBA interfaces to all dollar capable coin changers by one of 2 methods.

1. HIGH LEVEL: (See Figure 1) High Level uses 110 VAC. One end of machine harness to Control Box (21-Pin connector), other end must go through Dixie-Narco T-Adapter to the coin changer.
   12-pin Mate-N-Lock to Dixie-Narco T-Adapters 12-pin Mate-N-Lock.
   8-pin Jones plug to machine along with 8-pin Jones from Coin Mech.
   6-pin Molex from T-Adapter to 6-pin Molex from Coin Mech.
2. LOW LEVEL: (See Figure 3) Low Level uses 5 VDC. One end of machine harness to Control Box (21-pin connector), other end directly to the coin changer (12-pin Mate-N-Lock).

NOTE: Some coin changers such as Mars model TRC6800H as shown, will work either way. See Figure 2.

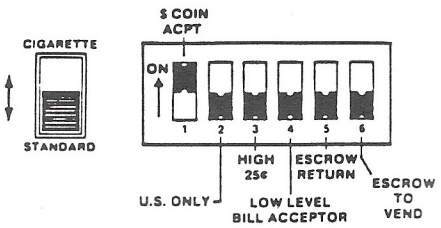
ADDITIONAL NOTES ON COIN CHANGER INTERFACES

Mars MC5800DH series changers will not work with early "black" control boxes.

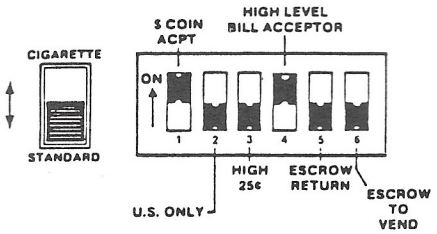
Mars TRC-6800H series changers should be connnected through the 12-pin Mate-N-Lock connector (low level) and the function switches in the changer must be set up as shown in the figure below "Standard Mode" - Low Level Bill Acceptor".

STANDARD MODE
Escrow to Vend

Low Level Bill Acceptor or
No Bill Acceptor
Simulates MC5800D Operation

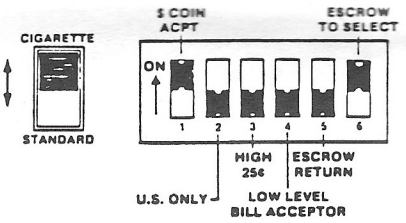


High Level Bill Acceptor
Simulates MC5802 Operation

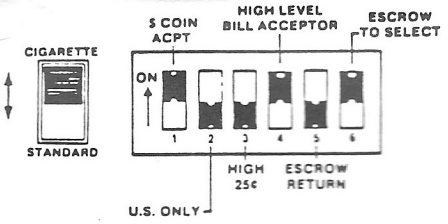


CIGARETTE MODE
Escrow to Select

Low Level Bill Acceptor
Simulates MC5805D Operation



High Level Bill Acceptor
Simulates MC5807 Operation



Mars MC5920ADH - Dollar capable 4 price changer requires a special adapter harness available from Dixie-Narco. The adapter harness part number is 99x0019-10. This harness is used between the 9-pin mini Mate-N-Lock plug on the changer accessory harness and the 6-pin connector on the Dixie-Narco T-Box Assembly.

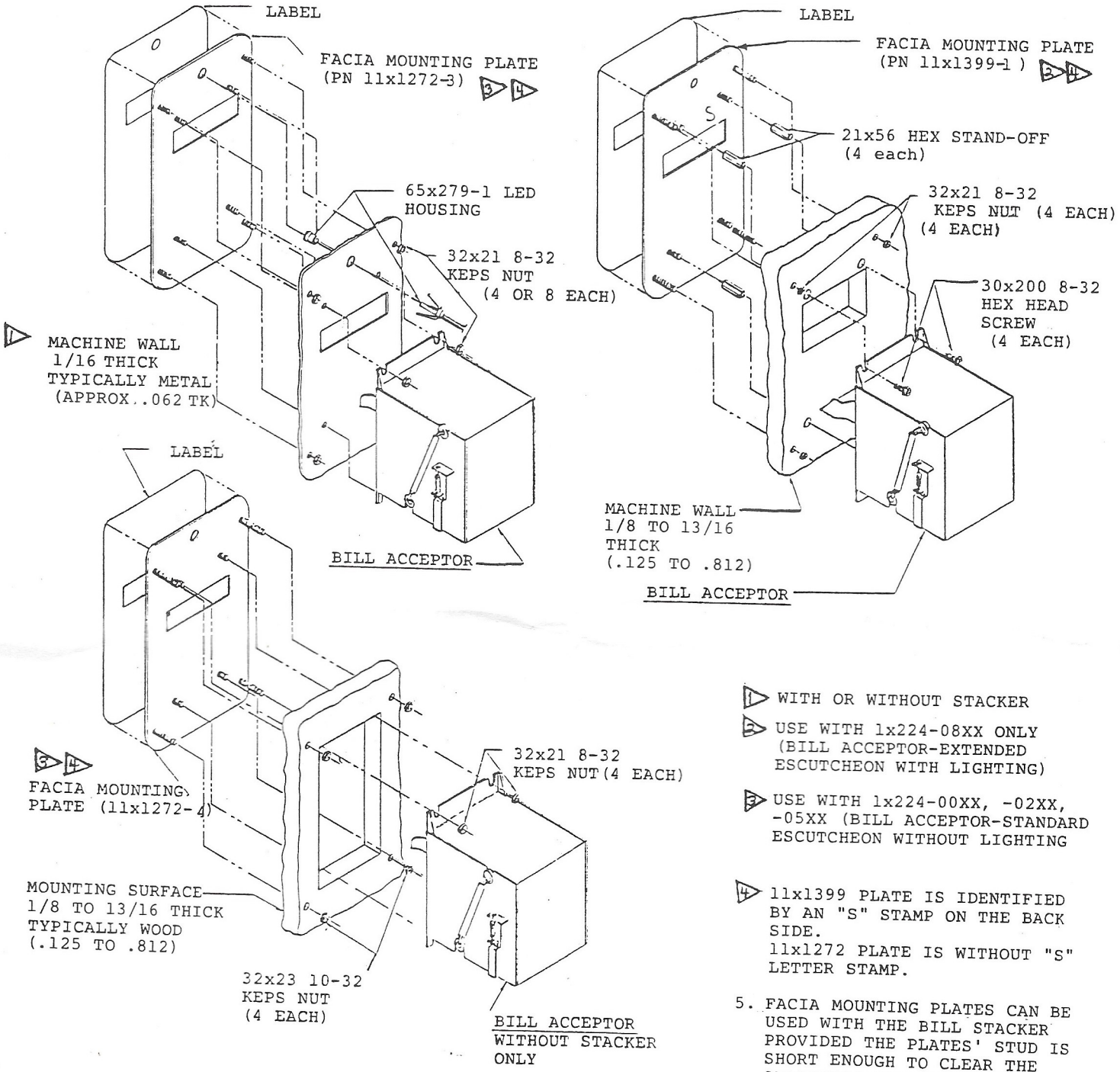
CoinCo F300E9210 - Dollar capable 4 price changer is connected through the Dixie-Narco T-Box Assembly.

All interfaces to controller changer systems (such as the Automatic Products Glassfront Vendor) are unique. Call the Dixie-Narco Service Department for assistance on any controller changer equipped vending machine that is not covered by our standard systems.

At this time, the Dixie-Narco MBA System cannot be interfaced to any 10 price or multi-price changer system.

In all cases where a dollar bill acceptor is desired on a coin operated machine, the machine must have the ability to accumulate credits. The MBA System does not accumulate credits.

MBA RETRO-FIT MOUNTING PLATES
TYPICAL INSTALLATIONS


LABEL
FACIA MOUNTING PLATE (PN 11x1272-3) 3 4
65x279-1 LED HOUSING
32x21 8-32 KEPS NUT (4 OR 8 EACH)
1 MACHINE WALL 1/16 THICK TYPICALLY METAL (APPROX..062 TK)
BILL ACCEPTOR
LABEL
FACIA MOUNTING PLATE (PN 11x1399-1) 3 4
21x56 HEX STAND-OFF (4 each)
32x21 8-32 KEPS NUT (4 EACH) (4 EACH)
30x200 8-32 HEX HEAD SCREW (4 EACH)
MACHINE WALL 1/8 TO 13/16 THICK (.125 TO .812)
BILL ACCEPTOR
LABEL
3 4
FACIA MOUNTING PLATE (11x1272-4)
32x21 8-32 KEPS NUT(4 EACH)
MOUNTING SURFACE 1/8 TO 13/16 THICK TYPICALLY WOOD (.125 TO .812)
32x23 10-32 KEPS NUT (4 EACH)
BILL ACCEPTOR WITHOUT STACKER ONLY

1 WITH OR WITHOUT STACKER

2 USE WITH 1x224-08XX ONLY (BILL ACCEPTOR-EXTENDED ESCUTCHEON WITH LIGHTING)

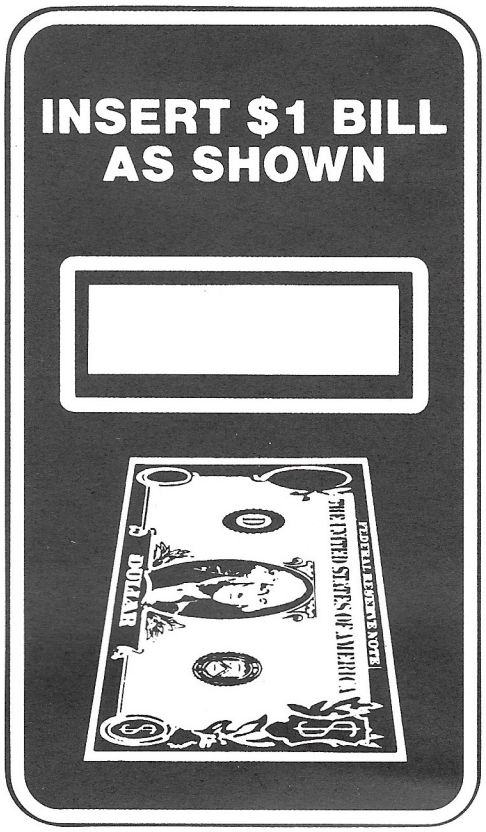
3 USE WITH 1x224-00XX, -02XX, -05XX (BILL ACCEPTOR-STANDARD ESCUTCHEON WITHOUT LIGHTING

4 11x1399 PLATE IS IDENTIFIED BY AN "S" STAMP ON THE BACK SIDE.
11x1272 PLATE IS WITHOUT "S" LETTER STAMP.

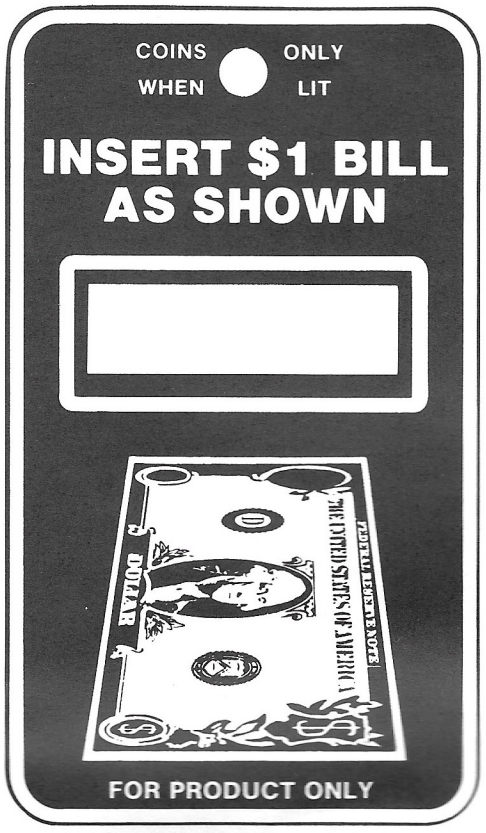
5. FACIA MOUNTING PLATES CAN BE USED WITH THE BILL STACKER PROVIDED THE PLATES' STUD IS SHORT ENOUGH TO CLEAR THE STACKERS' DOOR WHEN IT IS OPENED. (STUD STICK-THRU RELATES TO MACHINE WALL THICKNESS.)

6. FOR OTHER VARIABLES ON MOUNTING AND RETRO-FITS, PLEASE CONTACT THE DIXIE-NARCO SALES DEPT.

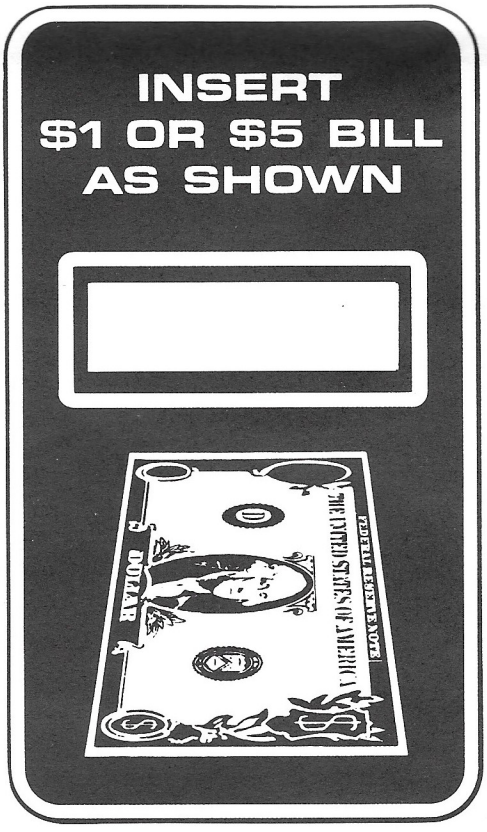
INSERTION INSTRUCTION LABELS
(TO FIT DIXIE-NARCO RETRO-FIT PLATES)



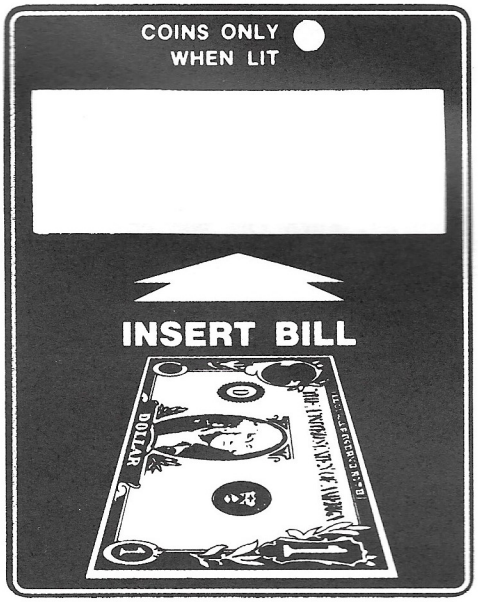
80X631-5



80X631-7



80X631-6



80X722

Color schemes are black background, orange border lines and white for copy and pictorial of bill.

FUNCTION SWITCHES - SPECIAL FEATURES

SWITCH 1 - SET GAIN

This switch is used to adjust the MBA for an optimum acceptance rate. The adjustment instructions are printed in the lower left-hand corner of the control box. This switch must be off for the MBA to function properly. If Switch #1 is left on, the acceptor will run continuously, and damage to the acceptor may result.

SWITCH 2 - BILL DIRECTION

This switch is used to set the MBA System to accept bills regardless of which end is presented to the acceptor first (two-way mode; switch off) or to accept the bill only if the black seal end is presented to the acceptor first (one-way mode; switch on).

SWITCH 3 - CODE DISPLAY

This switch is used to help service personnel define any kind of problem that may develop in the MBA. In the normal or OFF position, the status display will flash one of the ten codes defined on the right-hand side of the control box cover. If Switch #3 is turned on, the system will flash one of 67 tech codes. Please note that the MBA System will function properly regardless of what position Switch #3 is in.

SWITCH 4 - CREDIT OUTPUT

This switch is provided because in many of our applications we are required to provide a credit output that would be equivalent to four quarter insertion. When Switch #4 is in the normal or OFF position, the MBA will provide 1 credit pulse per dollar value accepted. If Switch #4 is in the special or ON position, the MBA will provide four pulses for each dollar value accepted. Depending on the credit logic used by the host machine, this could result in a maximum credit of $4 for each dollar value accepted.

INITIAL SET-UP

WHENEVER SYSTEM COMPONENTS ARE BEING CONNECTED OR DISCONNECTED, DO SO WITH POWER REMOVED OR DAMAGE TO SYSTEM COMPONENTS MAY RESULT.

1. Plug the stacker, acceptor and machine cables into the control box and into the associated components. Be careful to observe all polarizing pins. Insure that the stacker and acceptor are in alignment by seeing that the latch on the acceptor is into the slot on the stacker rail. Apply power to the system.

2. Move Function Switch #1 to the ON position. The motor in the acceptor will start and run continuously. While the motor is running, adjust the mag gain pot in the control box fully clockwise. A numberal "4" many appear in the L.E.D. status display.

3. If a number "4" appears, adjust the mag gain pot counterclockwise until the "4" disappears, then turn the pot counterclockwise one more hour. If a number "4" does not appear in the status display, turn the pot counterclockwise one hour.

4. Return Function Switch #1 to the OFF position.

HOW TO CLEAR ACCEPTOR JAMS

To clear an acceptor jam, first remove power from the system. Note: Failure to remove power while clearing an acceptor jam could cause the acceptor motor to run, resulting in damage to the acceptor or personal injury. You will see an opening in the housing with a big plastic drive gear. Manually turn the gear by inserting a pen in one of the holes provided, either forward or reverse, depending on where the jam occurred, to try and drive out the jammed object.

In the case of a smaller object that may not be located under one of the two drive belts, lift the top lid of the acceptor and remove the foreign object with tweezers.

In the case of removing a coin that was inserted into the acceptor, the coin must be driven out the way it entered. Do not try to force the coin through the unit. Damage to the bill path may occur.

After clearing the jam condition in the acceptor, inspect the drive belts and idler belts to insure that no damage to the belts has occurred or that the jam condition has not caused any belts to be driven off their pulleys.

Re-apply power and test the acceptor.

RECOMMENDED CLEANING AND MAINTENANCE

Due to the nature of dollar bills and the environment they are exposed to, it is inevitable that dollar bill handling devices will build up a film of oil, grease, and dirt from the dollar bills themselves. The Dixie-Narco MBA Acceptor is no exception, and if enough dirt is allowed to build up on the acceptor drive belts and the magnetic head, poor acceptance will result.

It is recommended that the acceptor note path and drive belts be cleaned approximately once a year or as needs dictate.

The following cleaning procedure will remove any build-up of oil, grease, and dirt that is collected in the acceptor through normal use.

1. Set the acceptor upside down on its lid. Turn Function Switch #1 on. The acceptor motor will run continuously. Apply isopropyl alcohol liberally in drops while the acceptor motor is running.

   1a. With the motor still running, use a soft paper towel to dry and clean the belts (see Figure 1), one at a time. Apply as many times as necessary until no more dirt or oil can be removed.

2. The black timing belt may be cleaned in the same manner as above.

3. Open the acceptor cover as shown in Figure 2. With the acceptor motor still running, as above, apply isopropyl alcohol to the idler belts (outer side). See Figure 3, #1.

4. It is neccessary to also clean the inner side of the idler belts. If the inside of the idler belts are oily, the idler belts may be driven off their rollers. In this procedure, it is neccessary to place a Q-tip soaked with ispopropyl alcohol underneath the idler belt (see Figure 3, #2).

5. While the motor is still running, insert a strip of clean bond paper that has been soaked with isopropyl alcohol in the center and let it run through once or twice. Then insert a strip of clean dry bond paper and let it run though once or twice. This will clean off any excess dirt build up on the magnetic sensor.

6. Turn off Function Switch #1.

7. Wipe off any dirt that may have collected on both the gray and the black tension rollers, as well as the idler belt rollers.

8. Wipe the note insertion opening with a soft cloth.

9. Clean the front note emitter (top) and photo sensor (bottom) using a Q-tip applicator and isopropyl alcohol.

10. After cleaning and inspection of the belts, check the appropriate adjustment page for proper tension of the belts.

NOTE: The unit requires no lubrication at any time. The use of lubricants will lead to premature dirt build up and possible drive belt slippage.

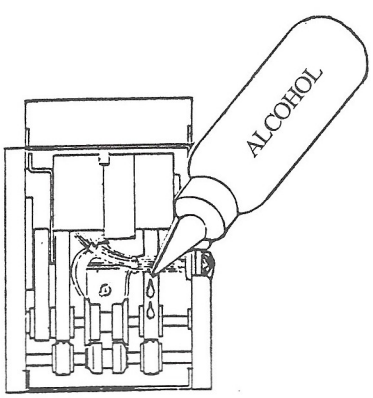


FIGURE 1

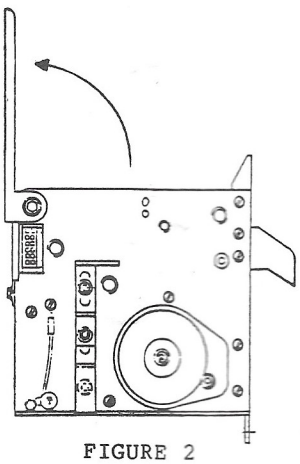


FIGURE 2

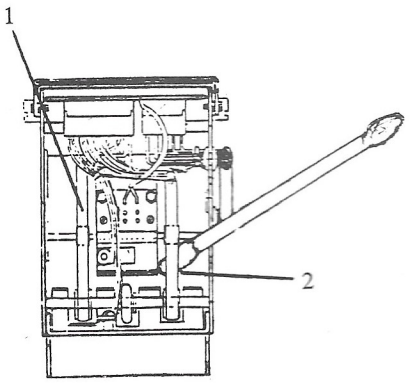


FIGURE 3

WIRING DIAGRAM

OPTIONAL
2 x #18 AWG, 2 CONDUCTOR WITH RED
2 x #18 AWG, 2 CONDUCTOR WITH RED AND BLACK
2 x #18 AWG, 4 CONDUCTOR WITH RED AND BLACK